

The Compensation Mechanism of Employee Experience from the Perspective of Algorithmic Management -- Based on the Perspective of Internal Marketing Strategy

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Abstract. With the wide application of artificial intelligence technology in human resource management, algorithm management is gradually becoming an important factor affecting employees' work experience. However, the efficiency priority logic followed by the algorithm system often conflicts with the psychological needs of employees, which may lead to the "dehumanization" of employees' experience. This paper aims to explore how enterprises can alleviate this structural tension by constructing a compensation mechanism to optimize the employee experience under algorithmic management, and analyze this process in the theoretical framework of internal marketing. This paper first reviews the dual impact of algorithm management on employee experience, and then expounds the evolution logic of the compensation mechanism from "efficiency compensation" as the guidance to "meaning giving" as the core. On this basis, a four-dimensional strategy system including institutional compensation, relationship compensation, psychological compensation and development compensation is proposed. The research shows that the employee experience compensation mechanism under algorithm management essentially reflects the internal marketing process in which enterprises regard employees as internal customers and obtain employee commitment through value transfer.

Keywords: Algorithm management, Employee experience, Compensation mechanism, Internal marketing, Human resource management.

1. Introduction

With the continuous evolution of digital technology, the management logic of organizations is undergoing profound changes. The algorithmic tools based on artificial intelligence and generative artificial intelligence are no longer limited to assisting decision-making, but are gradually developing into "virtual managers" who can independently perform management tasks [1][2]. From the automatic order dispatch of the online car-hailing platform, to the code evaluation of software developers, to the performance ranking of customer service centers and the real-time incentive of sales teams, the algorithm system is gradually replacing the traditional managers and undertaking the functions of planning, organization, command, coordination and control [3]. This emerging "algorithm management" paradigm, with its timeliness, accuracy and scalability, has brought significant operational efficiency improvements to enterprises [4].

However, the improvement of efficiency is often accompanied by the lack of "temperature" in the employee experience [1]. While optimizing resource allocation, algorithm management also brings new difficulties to employees. For example, the performance evaluation process is not transparent, making it difficult for employees to understand the basis of salary decisions; Continuous behavior monitoring aggravates the psychological pressure at work; The uncertainty brought by flexible scheduling weakens employees' sense of control over their work; The impersonal characteristics of the algorithm make it difficult to respond to the emotional needs of employees. These problems are not accidental deviations of algorithm management, but the natural results of its internal logic [5]. The essence of an algorithm is the standardized implementation of rules, and human experience at work contains many emotional and meaning dimensions that are difficult to quantify by rules [6].

Facing the challenge of employee experience brought by algorithm management, enterprises need to explore effective intervention paths. Among them, "compensation mechanism", as a direction

worthy of attention, refers to making up and repairing the loss of employee experience that may be caused by algorithm management through system design and organizational practice [4]. The theoretical basis of this idea is that although the algorithm system has advantages in efficiency, it cannot provide a complete working experience, so it needs to be supplemented by humanized institutional arrangements. Compensation is not the negation of algorithm logic, but the cognition and Transcendence of its functional boundary.

From the perspective of internal marketing, enterprises should treat employees as internal customers and work as products provided to employees, and stimulate their motivation to provide high-quality services to external customers by meeting their needs. Under this framework, the compensation mechanism in algorithm management is the internal marketing strategy that enterprises transfer "experience value" to employees in exchange for employees' organizational commitment.

This study attempts to integrate the two fields of algorithmic governance and internal marketing, and build a theoretical framework to understand the new employment relationship driven by technology, aiming to provide reference for the dynamic balance between efficiency and humanism in the digital transformation of enterprises.

2. Literature Review and Theoretical Basis

2.1. Algorithm Management: Paradigm Evolution from Control to Coordination

The formation of the concept of algorithm management is closely related to the rise of platform economy. Scholars Duggan and others defined it as "the management mode of remote monitoring, evaluation and coordination of workers through the algorithm system". Compared with traditional management methods, the core characteristics of algorithm management are reflected in several aspects: the management rules are presented in the form of code, the management process is automated, the management decision depends on data support, and the management relationship shows a tendency of impersonation [3].

Within the framework of job design theory, parent Rocheleau and Parker discussed the potential impact of algorithm management on employees' job characteristics. The results show that the algorithm system can improve the timeliness of task feedback and enhance the objectivity of performance evaluation; But at the same time, it may also weaken employees' work autonomy, reduce the integrity of tasks and the sense of meaning perceived by employees. Kellogg et al's classic research further revealed the multiple control mechanisms of algorithm management, and summarized it into six main directions: guidance, evaluation, discipline, recommendation and guidance, function substitution and behavior restriction, which systematically presented the constraint mode of algorithm on employee behavior.

It is noteworthy that in recent years, the academic perspective in this field has changed. More scholars began to reflect on the inherent limitations of one-way control of algorithm management, and turned to the possibility of cooperation between the algorithm and human beings. Cheng and Hackett pointed out that the value of the algorithm should not be limited to improving management efficiency, but also to stimulating the creative potential of human resources. However, to achieve this goal, the algorithm system needs to be transparent and interpretable enough to ensure that employees can understand and trust the operation logic of the algorithm [1].

2.2. Employee Experience: Connotation, Dimensions, and Driving Factors

Employee experience is usually understood as the overall perception and subjective evaluation of the work situation formed by employees in the process of interaction with the organization. The academic cognition of this concept has experienced continuous evolution: the early research mainly focused on the "satisfaction" of employees, focusing on the evaluation of employees' specific work elements; Subsequently, the focus of the research turned to "engagement", emphasizing the emotional engagement and behavior performance of employees; The current rise of the "experience" perspective focuses more on the comprehensive feelings of employees in the whole employment cycle [7].

As for the structural dimension of employee experience, academic circles have formed a more extensive understanding. From the content level, employee experience covers three aspects: physical experience (such as work environment), technical experience (such as digital tools) and cultural experience (such as organizational atmosphere). From the perspective of process, employee experience runs through the whole process of recruitment, entry, daily work, career development and resignation. From the psychological perspective, employee experience is reflected in the satisfaction of deep psychological needs such as autonomy, competence, belonging and sense of meaning [4].

The factors affecting employee experience are complex. In the specific context of algorithm management, the design features of an algorithm system include transparency, fairness, and participation, which are closely related to employee experience. Previous studies have shown that when the evaluation process of an algorithm lacks transparency, employees tend to have a strong sense of unfairness and powerlessness, which suggests that enterprises should carefully consider the potential impact of their design logic on employee experience when introducing algorithm management [5].

2.3. Internal Marketing: Treat Employees As Internal Customers

Internal marketing theory rose in the field of service marketing research in the 1980s. Its core proposition is that if an enterprise wants to win the satisfaction of external customers, it first needs to ensure that the internal employees, that is, the groups regarded as "internal customers", can obtain satisfaction. From this theoretical perspective, work itself is understood as a "product", and employees are the "consumers" of this product. Enterprises need to attract, develop and retain talents by designing work content and work situations that can meet the needs of employees.

From a practical perspective, internal marketing usually includes several key links. First, at the level of value proposition, enterprises need to clarify the "value commitment" passed to employees, that is, what employees can get from the organization. Secondly, at the communication level, enterprises need to understand the real needs of employees through the two-way communication mechanism, and convey the expectations of the organization to employees. Finally, at the response level, enterprises need to continuously optimize management practices according to employees' feedback to form a closed loop of internal marketing.

This framework has special theoretical significance and practical value in the context of algorithm management. When the algorithm system becomes the most important interactive interface in the daily work of employees, the way of value transmission between enterprises and employees has also changed accordingly. In this case, the enterprise's internal marketing strategy needs to think about how to supplement and improve the overall experience of employees at work through humanized arrangements outside the algorithm. In other words, although algorithm management has improved operational efficiency, the emotional and meaning dimensions in employee experience that are difficult to be quantified by algorithm still need to be responded through non algorithmic channels such as system design and interpersonal interaction [6].

3. Analysis of the Dual Effects of Algorithm Management on Employee Experience

3.1. Positive Experience Contribution of Algorithm Management

The impact of algorithm management on employee experience is not only negative. From a positive perspective, the algorithm system can improve the experience of employees in many aspects.

First, algorithm management helps to enhance the "visibility" between performance and rewards. The performance compensation system based on algorithm can collect multi-source performance data in real time, so that employees can more intuitively see how their efforts are translated into performance evaluation results, and ultimately affect the compensation return. This clear causal

relationship helps to strengthen employees' expectations and beliefs, that is, efforts will lead to performance improvement, while performance improvement will lead to corresponding rewards [5].

Secondly, algorithm management can improve the personalized level of incentive measures. With the prediction and recommendation ability of the algorithm, enterprises can customize differentiated incentive schemes according to the characteristics and preferences of different employees. For example, the system can recommend different types of incentive combinations, such as cash rewards, flexible working hours, or learning opportunities, based on the historical behavior data of employees, to improve the "effectiveness" of rewards, that is, the subjective recognition of the value of rewards by employees.

Third, the algorithm system can provide real-time and objective performance feedback. Compared with the traditional annual evaluation method, the algorithm-driven feedback mechanism can deliver performance information to employees at near real-time points to help them adjust their work behavior in time. This instantaneity helps employees maintain a clear sense of direction in a dynamic working environment, thereby improving work efficiency and adaptability.

3.2. Negative Experience Impact of Algorithm Management

The positive effect of algorithm management usually depends on specific preconditions. When these conditions are not met, the potential negative effects will gradually appear. Employees' perception of fairness may be eroded. The "black box" characteristic of the algorithm system is the main factor that causes the decline of the sense of fairness. When employees cannot understand how the algorithm evaluates their performance and determines the salary level, even if the algorithm is more "neutral" or "objective" than human managers, the lack of transparency may still lead to employees' doubts about it, and then make the algorithm lose its legitimacy in the organization.

In addition, the refined monitoring and scheduling of the working process by the algorithm may cause employees to fall into a state of "being dominated by the algorithm". Taking the network car-hailing platform as an example, the scheduling instructions of the algorithm are often highly rigid, leaving little room for the driver to make independent decisions. To some extent, this work style may lead to the "deskilling" of work content and then affect employees' perception of career growth.

Employees' social needs may also be difficult to meet. Work is not only a means of making a living, but also an important place for interpersonal communication and social contact. The impersonal characteristics of algorithmic management may weaken the emotional connection between employees and between employees and managers, which will lead to the breeding of loneliness and alienation and affect employees' sense of belonging to the organization. The sense of meaning of work may also face crisis. When employees perceive that they are only a "replaceable node" in the algorithm system, their recognition of the meaning of work will be challenged. This lack of sense of meaning is often more destructive than the lack of material incentives, and may have a far-reaching negative impact on employees' long-term work motivation and organizational commitment.

4. Compensation Mechanism: As a Response to Internal Marketing Strategy

4.1. System Compensation: Transparency and Participatory Design

The core goal of institutional compensation is to make up for the possible gap in fairness and legitimacy of the algorithm system through the design of rules.

One of the key measures is to establish the transparency mechanism of the algorithm. Enterprises need to fully disclose the basic logic, key data sources and main decision-making basis of the algorithm to employees to help them understand how the algorithm works. This does not mean that enterprises are required to disclose trade secrets such as the core algorithm code, but rather to provide a "user-centered" interpretation so that employees can clearly understand how their performance, salary and task arrangement are affected by the algorithm. This transparent communication helps to alleviate the sense of unfairness and anxiety caused by asymmetric information.

At the same time, enterprises also need to set up algorithmic appeal and manual review mechanisms. When employees have reasonable doubts about the decisions made by the algorithm, they should be able to appeal through smooth and convenient channels. More importantly, human managers with corresponding authority should review the algorithm decision after appeal to ensure that the algorithm results can be modified or supplemented if necessary. The existence of this mechanism is not only the guarantee of employees' right of expression, but also an institutional supplement to the boundary of algorithmic decision-making.

4.2. Relationship Compensation: Strengthening Social Connection

The starting point of relationship compensation is to respond to the weakening of social relationships that may be brought about by algorithm management. When the algorithm system gradually takes over the functions of monitoring, evaluation and even some decision-making, the emotional connection and interaction space between people is often compressed, and this dimension needs to be repaired through institutionalized relationship design.

In this process, the transformation of the role of managers is of fundamental significance. With the traditional supervision function being shared by the algorithm, managers need to be liberated from the role of "supervisor" controller, and shift the focus of work to areas where the algorithm is not competent. This includes emotional support, psychological counseling, growth care and career development guidance for employees [2]. In other words, managers should become supporters and companions of employees in the organization, rather than simply task supervisors.

At the same time, enterprises also need to consciously build "outside the algorithm" team interaction space. This means creating all kinds of opportunities for employees to temporarily leave the work scene defined by the algorithm and have more natural interpersonal communication. Whether it is regular team activities, informal communication occasions, or one-to-one emotional communication between managers and employees, it can help employees re-establish a sense of belonging in an algorithm environment full of alienation. This kind of interaction not only helps to alleviate the loneliness at work but also provides continuous emotional support for employees, so that they can still maintain a sense of direction and psychological stability in the face of uncertainty.

4.3. Psychological Compensation: Restoration of Autonomy and Sense of Control

The core of psychological compensation is to respond to the internal needs of employees that are not fully met in the algorithm management environment. When the algorithm system operates in a data-based and standardized way, employees' demands for autonomy, recognition and psychological safety are often difficult to be realized automatically, and need to be guaranteed through special design. At the autonomy level, enterprises can reserve a certain amount of independent choice space for employees in addition to the rigid constraints of algorithm scheduling. For example, employees are given some priority or flexibility in shift scheduling, task selection, or work time arrangement, so that they can still have a sense of control over their work while being coordinated by the algorithm. In terms of recognition and appreciation, we need to make up for the limitations of algorithm recognition. The feedback of the algorithm is usually digital and silent, which is difficult to convey emotional recognition. Enterprises can make employees' work achievements seen and affirmed through ceremonial activities such as commendation, reward and celebration. This kind of ceremony is not only a recognition of performance, but also a symbolic recognition of employees' personal value. In the construction of psychological security, it is particularly important to establish a fault-tolerant mechanism. When employees worry that every attempt may be recorded by the algorithm and lead to a negative evaluation, their willingness to innovate and work initiative will be inhibited. Therefore, enterprises need to clearly convey an inclusive attitude towards reasonable trial and error outside the algorithm evaluation system, so that employees can dare to explore and improve without always being under the pressure of monitoring and evaluation.

4.4. Development Compensation: Value Transfer of Growth Opportunities

Development compensation focuses on the long-term value and future growth of employees. It is a value dimension of strategic significance that enterprises transfer to employees. When the algorithm system gradually takes over the programmed tasks, the development path of employees needs to be redefined and redesigned. Under this framework, enterprises should strive to provide those capacity development opportunities that are difficult to replace by algorithms. This means that the focus of training and development needs to shift from traditional knowledge transfer and skill training to areas that rely more on interpersonal interaction, creative thinking, complex problem solving and emotional intelligence. These capabilities just constitute the "human advantage zone" that algorithm is difficult to penetrate, and are also the basis for employees to maintain long-term competitiveness in technological change.

At the same time, enterprises should also pay attention to the diversity of employees' career paths. Provide employees with opportunities to flow and rotate between different positions, projects and even business units, which will help them continue to explore new areas of work and continuously expand their ability boundaries. This kind of job mobility can not only help employees accumulate more experience but also effectively hedge against the sense of burnout and stagnation caused by long-term, highly structured, and algorithm-driven work. Only by achieving continuous growth in a changing career path can employees still maintain their commitment and identity to work in the technology-led organizational environment [8].

5. Conclusion

This study deeply analyzes the core issue of employee experience compensation mechanisms under algorithm management. This study focuses on the compensation mechanism of employee experience in the context of algorithmic management, trying to respond to a core problem: when the algorithmic system reshapes the management process with its efficiency logic, how should enterprises repair and optimize employees' work experience through institutional arrangements.

Algorithm management has a dual impact on employee experience. On the one hand, it can enhance employees' perception of the working process and results with the help of real-time feedback, precise incentives and other technical means; On the other hand, because the algorithm system often has limitations in transparency, autonomy and interpersonal interaction, it may also lead to the decline of employees' sense of fairness, the weakening of autonomy, the loss of social needs and the crisis of sense of meaning. The deep root of this dual effect lies in the structural tension between the efficiency logic followed by the algorithm and the inherent human logic of employees. The compensation mechanism is the necessary institutional arrangement to respond to the above tension. Future research can further focus on the differentiated needs of different types of employees for compensation mechanisms, the dynamic evolution process of compensation mechanisms in enterprise practice, and the comparative analysis of the effectiveness of compensation mechanisms under different cultural backgrounds.

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